REMARKS

The Applicants request reconsideration of the rejection.

Claims 1-18 are pending.

The Applicants appreciate the acknowledgment of the filing of the certified copy of the foreign priority document. For the record, however, the certified copy was filed in the present application with the original application papers on February 19, 2004. The present application does not claim priority benefits to a "parent Application No. 2003-418907, filed on 12/17/2003," as stated on page 2 of the Office Action.

Claim 9 was rejected under 35 U.S.C. §112, first paragraph, as failing to be enabled by specification support for attaches importance as recited in the claim. In reply, the Applicants note that the expression is set forth in the specification on page 16, line 22 (for example) in a description of a preferred embodiment, according to which the system resources of the storage are partitioned logically according to the needs of the host systems that are connected to the storage. In the example given, when a host system using the logical partition 1 requires support from a storage having a high read data transfer rate (i.e., "attaches importance" to a high read data transfer rate), the hypervisor

increases the amount of the cache memory 105 allocated to the logical partition 1, such that requested data is stored in the cache memory 105 to as great a degree as possible. Thus, although the claim seems to be fully supported and definite in the meaning of §112, claim 9 has been amended to clarify the expression without narrowing the scope of the claim.

Claims 9 and 13-15 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for the reasons set forth on page 3 of the Office Action. The ground for rejecting claim 9 (recital of "attaches importance") has been addressed above. Claims 13-15 were rejected as claiming terms of relativity to unknown values, and have been amended to address the Examiner's concerns without narrowing their scope.

Claims 1-18 were rejected under 35 U.S.C. §102(e) as being anticipated by Doing, et al., US 2003/0009648 (Doing). The Applicants traverse as follows.

A key feature of the present invention, as set forth in the independent claims, is the logical partitioning of multiple storage resources. The disclosed example of Network-Attached Storage (NAS), to which the present invention has particular applicability, was originally based on the idea that it is advantageous to provide a storage shared over a network than to set a storage individually for plural hosts.

Thus, the NAS has to perform control for sharing a storage area among the plural hosts. By logically partitioning the NAS, plural virtual NASs operate on one physical NAS, such that control for the sharing can be reduced, and mutual interference among the hosts can be eliminated to optimize performance of data input/output operations and localize data destruction or failures. In addition, the utilization of resources such as processors, memories, and storage media is improved, in general.

In rejecting the claims, the Examiner recognizes the disclosure of Doing to logical partitioning of a computer system. In particular, the Examiner notes paragraph [0029] as disclosing the claimed logical partitioning of various resources of the storage. Paragraph [0029], however, describes problems of the prior art, and Doing's wish to solve the problems. Paragraph [0029] contains no teaching of structure or method for performing the logical partitioning of the storage as disclosed and claimed in the present application.

Moreover, while Doing, indeed, discloses a "hypervisor" as an "ultra-privileged supervisor process" for logically partitioning certain computer system resources, the claims require the storage to logically partition a first processor,

a second processor, a cache memory, a disk interface, and disk drive groups (see the description of Fig. 1, for example, which shows a dotted line defining a logical partitioning boundary separating these resources logically for unencumbered use by different host systems). Doing, on the other hand, expressly teaches away from logically partitioning the disk control processors (input/output processors (IOP) 111-112) or the disk drive groups (DASDs) attached to the disk control processors. Note, for example, paragraph [0065]:

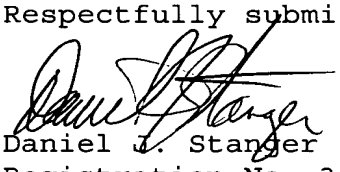
> Logical partitioning means that the system is logically divided into multiple subsets called logical partitions, and some of the system resources are assigned to particular logical partitions, while other resources are shared among partitions. In the preferred embodiment, processors and real memory are assigned to logical partitions in a partitioned system, while buses, I/O controllers, and I/O devices are shared, it being understood that it would be possible to assign different types and mixtures of devices to partitions. ... At the same time, the different logical partitions share hardware resources such as disk storage and I/O, as well as certain low level software resources.... (emphasis added)

Moreover, that Doing's "independent virtual storages or partitions" described in paragraph [0137] have their own segment and page tables, simply expresses that the logical partitions have independent address translation mechanisms (see paragraph [0062]). Paragraph [0137] is not evidence that the prior art knew of the claimed partitioning of resources.

Each of the independent claims has been amended to emphasize the partitioning of resources advanced above. Accordingly, all the pending claims are patentable over Doing, whether taken individually or in combination with any reference of record.

In view of the foregoing amendments and remarks, the Applicants request reconsideration of the rejection and allowance of the claims.

Respectfully submitted,



Daniel J. Stanger
Registration No. 32,846
Attorney for Applicants

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.
1800 Diagonal Road, Suite 370
Alexandria, Virginia 22314
(703) 684-1120
Date: November 17, 2005